



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/592,972	09/15/2006	Christopher Peter Jones	M03B336	4081
20411 7590 06/09/2010 The BOC Group, Inc. 575 MOUNTAIN AVENUE MURRAY HILL, NJ 07974-2082				
EXAMINER				
PHASGE, ARUN S				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
06/09/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/592,972

Applicant(s)

JONES ET AL.

Examiner

Arun S. Phasge

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 19-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 9/15/06, 2/4/10

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I in the reply filed on 4/30/10 is acknowledged.

Claim Objections

Claims 7-18 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must depend from a claim in the alternative and a multiple dependent claims cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 7-18 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Neumeister et al. (Neumeister), U.S. Patent 5,954,935.

The Neumeister patent discloses the claimed apparatus for removing impurities from an electrolyte solution in an electromembrane device, comprising means for conveying at least one stream of electrolyte solution between a cathode and an anode of the device and means for transferring selected ions from the electrolyte solution into a separate stream upon application of a current, where the means for transferring ions comprises anion exchange membrane adjacent the cathode and a cation exchange membrane adjacent the anode (see figure 1 and col. 3, lines 28-48). The patent further disclose that the membranes are in contact with an electrode, wherein the contact is electrical contact by means of a liquid permeable ion conducting material (see figure 1 and col. 3, lines 28-48). The patent further discloses wherein the ion conducting material is an anion conducting material in contact with the cathode and a cation conducting material in contact with the anode (see col. 3, lines 28-48).

Therefore, since the Neumeister patent discloses each and every limitation, the claims are rejected.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Emery et al (Emery), GB Patent 2 311 999 A.

The Emery reference patent discloses the claimed apparatus for removing impurities from an electrolyte solution in an electromembrane device, comprising means for conveying at least one stream of electrolyte solution between a cathode and an anode of the device and means for transferring selected ions from the electrolyte solution into a separate stream upon application of a current, where the means for transferring ions comprises anion exchange membrane adjacent the cathode and a cation exchange membrane adjacent the anode (see claim 1). The patent further discloses that the membranes are in contact with an electrode, wherein the contact is electrical contact by means of a liquid permeable ion conducting material (see figure 1 and page 10, line 15 to page 11, line 21). The patent further discloses where in the ion conducting material is anion conducting material in contact with the cathode and a cation conducting material in contact with the anode (see page 11, lines 20-25).

Accordingly, since the Emery patent discloses each and every limitation, the claims are rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arun S. Phasge/
Primary Examiner, Art Unit 1795

asp